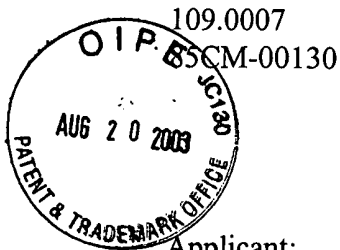


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PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Arehart, Kurt L.

Serial No.: 09/748,934

Filed: December 27, 2000

For: SYSTEMS AND METHODS FOR OPTIMIZING USE OF MORTGAGE  
INSURANCE BASED UPON PROJECTIONS OF FUTURE HOME EQUITY

Group: 3628

Examiner: Clement B. Graham

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GROUP 3628

Durham, North Carolina  
August 18, 2003

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TRANSMITTAL OF APPEAL BRIEF**

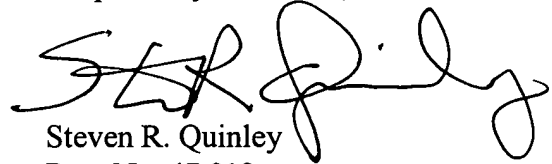
Sir:

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on May 18, 2003.
2. The Applicant is other than a small entity.
3. Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is \$ 320.00

[ x ] Enclosed is a check for the fee in the amount of \$320.00.

[ x ] The Commissioner is hereby authorized to charge any additional fees which may be required including any fee for extension of time or credit any overpayment to Deposit Account No. 50-1058. Should such an extension become due, this letter constitutes a petition requesting same. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S.R. Quinley', with a stylized, flowing script.

Steven R. Quinley

Reg. No. 47,012

Priest & Goldstein, PLLC

5015 Southpark Drive, Suite 230

Durham, NC 27713-7736

(919) 806-1600

109.0007  
85CM-00130

Patent



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of : Arehart  
For: : Systems and Methods for Optimizing Use of  
Mortgage Insurance Based Upon Projections  
of Future Home Equity  
Serial No. : 09/784,934  
Filed : December 27, 2000  
Group : 3628  
Examiner : Graham

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**GROUP 3600**

COVER SHEET FOR  
APPELLANT'S BRIEF ON APPEAL

I hereby certify that this correspondence is being deposited  
with the United States Postal Service as first class mail in an  
envelope addressed to: Commissioner of Patents and  
Trademarks, Washington, D.C. 20231, on the date set forth  
below:

Signed: Marianna Tortorelli

Name: Marianna Tortorelli

Date: August 18, 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of : Arehart  
For: : Systems and Methods for Optimizing Use of  
Mortgage Insurance Based Upon Projections  
of Future Home Equity  
Serial No. : 09/784,934  
Filed : December 27, 2000  
Group : 3628  
Examiner : Graham

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Durham, North Carolina  
August 18, 2003

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPELLANT'S BRIEF

Sir:

1. The Real Party In Interest

The real party in interest is the assignee, GE Mortgage Holdings, LLC.

2. Related Appeals and Interferences

None.

3. Status of the Claims

This is an appeal from the December 31, 2002 final rejection of claims 1-24, all of the

pending claims. Claims 1-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan U.S. Patent No. 5,673,402 ("Ryan").

4. Status of Amendments

The claims stand as last amended on September 27, 2002.

5. Summary of the Invention

The present invention provides systems and methods for optimizing the use of mortgage insurance based upon projections of future home equity. Mortgage insurance protects a lender against a default by a home buyer on a mortgage. Mortgage insurance provides home buyers with greater flexibility in choosing a property, because with mortgage insurance a home buyer can purchase a home with significantly less than the minimum down payment of 20% or more that otherwise typically is required. Thus, mortgage insurance can be used to increase a home buyer's "leverage," allowing a home buyer to buy a more expensive property with a smaller percentage of initial equity. It is often assumed by potential real estate purchasers that real estate prices will rise over time as a percentage of the initial purchase price. Provided that the borrower's initial assumption concerning the appreciation of real estate values over time proves to be correct, and assuming that the borrower holds onto the property for the requisite number of years, it is generally to the borrower's advantage from the point of view of maximizing future home equity, to purchase as expensive a property as the borrower initially can afford. Thus, if a home buyer uses mortgage insurance to purchase a more expensive property, then over the course of several years the home buyer may have a greater dollar amount of home equity than would have been the case if the home buyer had not used mortgage insurance and instead had initially purchased a less expensive property with the same initial down payment.

However, despite their potential benefits, mortgage insurance products are often not well understood by prospective home buyers and can therefore be difficult to sell. The systems and methods of the present invention calculate a maximum dollar amount for the purchase price of a house that the borrower can afford, based upon an optimal loan-to-value ratio achievable using mortgage insurance, that allows a prospective home buyer to see on a case-by-case basis how much additional equity can be built up through the use of mortgage insurance.

Fig. 3 shows the inputs and outputs in one system according to the present invention. The outputs are shown as a series of tables 34, providing analyses for varying loan-to-value (LTV) ratios, ranging from 100% down to 80%. For example, LTVs of 80% and 97% mean that the down payment made on a property is 20% and 3%, respectively. Within each table 34, the system lists the borrower's cumulative projected future home equity position for years one through ten. The data contained in the tables 34 in Fig. 3 provide guidance to a borrower in determining an optimum LTV ratio, that is, an LTV ratio that maximizes projected future home equity. Once this optimum LTV ratio is determined, the calculator generates a graphical representation 36 comparing the buildup of projected future home equity at the optimum LTV ratio of 97%, with the projected future home equity at the minimum LTV ratio of 20% that is typically required by the lender if mortgage insurance is not purchased.

By way of example, claim 1 of the present invention reads as follows:

1. A system for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising:

a central processing unit having electronic access to mortgage insurance information; and  
a user interface for receiving user inputs indicative of a borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption, and for providing those



inputs to the central processing unit,

the central processing unit performing an analysis of the inputted information and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity,

the central processing unit further calculating a maximum dollar amount of a house purchase price that the borrower can afford without using mortgage insurance,

the central processing unit providing results of the calculations to the user interface for output to the user.

6. The Issue For Review

The sole issue for review is whether claims 1-24 were properly rejected under 35 U.S.C. § 103 and the standard set forth in M.P.E.P § 706.02 where these claims clearly recite a combination of features not shown and not suggested by Ryan, and there is no suggestion to modify this reference to result in the claimed invention.

7. Grouping of Claims

The rejected claims do not stand or fall together. The claims should initially be considered in Groups I-IV based upon the differences between the independent claims: namely, Group I, claims 1-8 and 21; Group II, claims 9-20; Group III, claim 23; and Group IV, claim 24. The independent claims 1, 9, 23 and 24 address: a "system for optimizing a borrower's use of mortgage insurance based upon projections of future home equity" (claims 1 and 23); and a "method for optimizing a borrower's use of mortgage insurance based upon projections of future home equity" (claims 9 and 24).

Additionally, the dependent claims address a number of combinations and limitations not found in the independent claims. The following additional subject matter is noted: providing "the results of the calculations in table format" (claims 2 and 10); providing "a graphical representation of the results of the calculations" (claims 3 and 11); "downloading software components and mortgage insurance information" (claims 4 and 12); calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by cash available to the borrower to close" (claims 5 and 13); calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by the borrower's income" (claims 6 and 14); calculating "the projected home equity after predetermined periods of time" (claims 7 and 15); and calculating "the cumulative projected future home equity for years one through ten" (claims 8 and 16).

#### 8. Argument

The final rejection under 35 U.S.C. § 103 did not follow M.P.E.P. § 706.02(j) which states:

After indicating that the rejection is under 35 U.S.C. 103, the Examiner should set forth...the difference or differences in the claim over the applied reference,...the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and...an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

As will be illustrated below, the claims of the present invention are not obvious in view of the reference relied upon by the Examiner.

#### A. The Section 103 Rejections

The art rejections are not supported by the sole reference relied upon. 35 U.S.C. § 103 which governs obviousness indicates that "differences between the subject matter sought to be

patented and the prior art" are to be assessed based upon "the subject matter as a whole".

Analyzing the entirety of each claim, the rejections under 35 U.S.C. § 103 are not supported by the relied upon art as addressed further below.

Ryan is entitled "Computer System for Producing an Illustration of an Investment Repaying a Mortgage". Ryan describes a financial product which allows an individual to purchase a home using a mortgage without having to make the cash down payment typically required by the mortgage lender. Instead of making a down payment of 10 or 20 percent, for example, to be used as collateral for the mortgage, the individual purchases a permanent life insurance policy. The individual then makes a collateral assignment of the life insurance policy to the lender. Thus, the lender is protected in the event of default by the individual, and the individual's money can grow through the permanent life insurance policy. This life insurance policy is simply collateral for a home loan, and is used instead of private mortgage insurance and the traditional down payment.

In contrast to Ryan, the present invention provides systems and methods for optimizing the use of mortgage insurance based upon projections of future home equity by showing prospective home buyers how much additional equity can be built up through the use of mortgage insurance. In one aspect, the present invention provides techniques for calculating a maximum dollar amount for the house purchase price that a borrower can afford both with mortgage insurance that maximizes future home equity and without using mortgage insurance. See claim 1, for example, which recites "the central processing unit...calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity, the central processing unit further calculating a maximum dollar amount of a house purchase price that the borrower

can afford without using mortgage insurance..." This technique encourages the home buyer to purchase mortgage insurance as the buyer is informed that if mortgage insurance is used to purchase a more expensive property, then over the course of several years the home buyer may have a greater dollar amount of home equity than would have been the case if the home buyer had not used mortgage insurance and instead had initially purchased a less expensive property with the same initial down payment. Ryan does not teach and does not render obvious such a technique.

Ryan, the sole reference relied upon in the Official Action, describes a financial product that uses life insurance as collateral and as a mechanism for repayment of a mortgage. The present invention teaches something very different, an evaluation tool for optimizing a borrower's use of mortgage insurance based upon projections of future home equity by "calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity" as recited in claims 9, 23 and 24, for example. Ryan does not teach and does not render obvious such a technique.

The Official Action states at page 6, lines 13-16, that Ryan "does not explicitly teach calculating a maximum dollar amount of a house purchase price based upon an optimal loan to value ratio achievable using mortgage insurance or constrained by the cash available to borrower to close or constrained by income." Applicant agrees with the quoted characterization of Ryan, except that it substantially understates Ryan's inadequacy as a reference. As described above, the present invention relates to techniques that employ mortgage insurance to facilitate the purchase of property of increased initial value which may be at the highest possible price, in order to maximize the leverage of a down payment for maximum growth of future home equity. In

contrast, Ryan relates to systems and methods for bundling home purchase financing and life insurance. Ryan's life insurance is not the same product as mortgage insurance. Moreover, Ryan fails to disclose and fails to suggest the use of such life insurance to facilitate the purchase of property of increased initial value which may be at the highest possible price, in order to maximize the leverage of a down payment for maximum growth of future home equity. Simply put, the Official Action's lengthy attempt to bridge the void from Ryan to the present claims is conclusory, and is unsupported by and taught against by Ryan.

Ryan explains that "in the US there is a unique problem of how to lawfully combine a mortgage and life insurance and additionally make a viable financial product." Ryan, col. 2, lines 57-59. Ryan discloses, as a solution to that problem, systems and methods for preparing, processing and transmitting life insurance premium quotes as part of a mortgage calculation in support of a new financial product. In the new financial product, life insurance is used as collateral and as a means for repayment of a mortgage, and facilitates the purchase of real estate without, or with a greatly reduced, down payment. The key components to the transaction may include: a balloon repayment mortgage, life insurance coverage equal to the amount of the mortgage, and a separate vehicle for accumulating principal. Ryan col. 9, lines 13-17 and lines 40-57. Other instruments that may be used as collateral instead of life insurance include, for example, term insurance used in conjunction with a security such as a zero coupon bond, or term insurance used in conjunction with a deferred annuity. Ryan, col. 43, line 64 through col. 44, line 4.

Ryan makes sparse references to mortgage insurance, but those references expressly teach that Ryan's systems and methods generally do not involve mortgage insurance:

PMIPCT: This is the cost of private mortgage insurance. **Because of its enhanced**

**security to lenders, this is not expected to be a cost with the Ryan Mortgage.**

Conventional mortgages typically require private mortgage insurance if the down payment amount is less than 20 percent of the purchase price of the home. The system allows an input in FIG. 3B-2, Block 182, but the default is 0.5 percent of the original mortgage balance annually until the mortgage balance goes below 80% of the original purchase price of the home. **The system uses zero for the Ryan Mortgage.** However, other values may be used for both the Ryan Mortgage and the conventional mortgage. Ryan col. 65, lines 52-63. (emphasis added)

Block 150 computes a conventional mortgage, term insurance cost, and private mortgage insurance cost such that Block 152 can produce an illustration of the Ryan Mortgage in comparison with a conventional mortgage. Ryan col. 29, lines 50-57; and excerpted from text in Fig. 3B-7.

The attached illustration shows how life insurance can be used **instead of the traditional down payment or private mortgage insurance** approach to provide security for your mortgage. Excerpted from text in Fig. 27A. (emphasis added)

With The Ryan Mortgage, you will enjoy greater tax deductions from interest than with a conventional mortgage. You will enjoy a low up-front payment. Because your equity in the life insurance policy cash value will accumulate more rapidly than conventional mortgage amortization, **you will not have to pay private mortgage insurance.** Excerpted from text in Fig. 27E. (emphasis added)

The weight of Ryan's insurance discussion relates to life insurance. Life insurance does, as disclosed by Ryan, include death benefits to retire the mortgage upon the death of the borrower. However, any such death benefits are not utilized in the manner taught and claimed by the present invention. Further, life insurance as utilized by Ryan is intended to perform substantial functions that mortgage insurance, as that vehicle is typically understood, cannot be used to perform. For example, Ryan discloses the use of premiums paid on life insurance as a substitute for the initial down payment on a mortgage, and the use of accumulated cash values to retire the outstanding principal on a mortgage in the event of the borrower's survival. Ryan, col. 1, lines 7-24; see also for example, col. 7, line 52 through col. 8, line 10. To sum up, Ryan is going in a different direction than does the present invention and does not disclose and does not

suggest systems or methods for optimizing a borrower's use of mortgage insurance based on projections of future home equity. Ryan to the contrary discloses mortgage insurance as being undesirable and normally unneeded for one following his teachings.

Regarding the dependent claims, the above discussion is fully dispositive. These claims address a number of combinations of limitations not taught and not rendered obvious by the relied upon reference when properly considered in combination. See, for example, claims 5 and 13 which claim calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by cash available to the borrower to close"; and claims 6 and 14 which claim calculating "the maximum dollar amount of a house that can be purchased by the borrower, constrained by the borrower's income". These claims are not taught and are not rendered obvious by Ryan when properly considered in combination. Moreover, there is not support in Ryan for the conclusory speculations made as to obviousness with respect to these claims.

See also dependent claims 2 and 10 which claim providing "the results of the calculations in table format"; claims 3 and 11 which claim providing "a graphical representation of the results of the calculations"; claims 4 and 12 which claim "downloading software components and mortgage insurance information"; claims 7 and 15 which claim calculating "the projected home equity after predetermined periods of time"; and claims 8 and 16 which claim calculating "the cumulative projected future home equity for years one through ten." These claims are not taught and are not rendered obvious by Ryan when properly considered in combination.

In closing, Ryan does not disclose and does not suggest methods for optimizing a borrower's use of mortgage insurance based on projections of future home equity. In particular, Ryan fails to disclose and fails to suggest a system for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising: a central processing unit

having electronic access to mortgage insurance information; and a user interface for receiving user inputs indicative of a borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption, and for providing those inputs to the central processing unit, the central processing unit performing an analysis of the inputted information and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity, the central processing unit further calculating a maximum dollar amount of a house purchase price that the borrower can afford without using mortgage insurance, and the central processing unit providing results of the calculations to the user interface for output to the user.

Overall, Applicant is somewhat puzzled by the Examiner's response to the previously submitted arguments and the apparent refusal of the Examiner to consider both the plain language and the context of the present claims. The relied upon reference does not teach and does not render obvious techniques for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, as claimed. Nor is private mortgage insurance in any way equivalent to life insurance. Nothing in the cited reference indicates a recognition of the problems addressed by the present invention. Further, nothing in the cited reference indicates a system which would solve the problems addressed by the present invention. The claims of the present invention are not taught, are not inherent, and are not obvious in light of the art relied upon.



B. The Examiner's Findings of Obviousness are  
Also Contrary to Law of the Federal Circuit

As shown above, the invention claimed is not suggested by the relied upon prior art. The references cited by the Examiner, if anything, teach away from the present invention. It is only in hindsight, after seeing the claimed invention, that the Examiner could combine the references as the Examiner has done. This is improper under the law of the Federal Circuit, which has stated that "[w]hen prior art references require selective combination by the Court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." Uniroyal, Inc. v. Rudkin Wiley Corp., 5 U.S.P.Q. 2d 1434, 1438 (Fed. Cir. 1988), cert. den., 102 L.Ed. 2d 51 (1988); quoting Interconnect Planning Corp. v. Feil, 227 U.S.P.Q. 543, 535 (Fed. Cir. 1985). Furthermore, "[i]t is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention." Uniroyal Inc. v. Rudkin Wiley Corp., 5 U.S.P.Q. 303, 312 (Fed. Cir. 1983), cert. den., 469 U.S. 851 (1984). Similarly, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Laskowski, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989), quoting In re Gorgon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). No such suggestion is found here.

In addition, the Examiner does not appear to have considered "where the references diverge and teach away from the claimed invention", Akzo N.V. v. International Trade Commission, 1 U.S.P.Q. 2d 1241, 1246 (Fed. Cir. 1986), cert. den., 482 U.S. 909 (1987); and W.L. Gore Associates, Inc., 220 U.S.P.Q. at 311; nor has the Examiner read the claims as a whole, as required by statute. 35 U.S.C. 103. See also, Smithkline Diagnostics Inc. v. Helena

Laboratories Corp., 8 U.S.P.Q. 2d 1468, 1475 (Fed. Cir. 1988); and Interconnect Planning Corp. v. Feil, 227 U.S.P.Q. at 551.

In In re Laskowski, 10 U.S.P.Q. 2d 1397, the Federal Circuit reversed an obviousness rejection of the claims in an application for a bandsaw. The claimed bandsaw used a pulley type wheel loosely fitted with a tire. The primary reference showed a similar bandsaw where the band was tightly fitted. The Federal Circuit stated that the prior art did not provide a suggestion, reason or motivation to make the modification of the reference proposed by the Commissioner. Id. at 1398. The Court added that "there must be some logical reason apparent from the positive, concrete evidence of record which justifies a combination of primary and secondary references." Id. quoting In re Regal, 188 U.S.P.Q. 136, 139 (C.C.P.A. 1975), citing In re Sterniski, 170 U.S.P.Q. 343 (C.C.P.A. 1971).

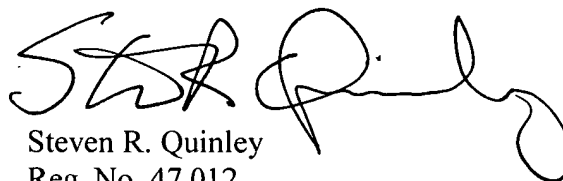
In Uniroyal Inc. v. Rudkin Wiley Corp., 5 U.S.P.Q. 2d 1434, the Federal Circuit reversed the District Court's finding that the claims for a patent for an air flow deflecting shield were obvious. Without any suggestion in the art, the District Court improperly chose features from several prior art references to recreate the claimed invention.

The Examiner's rejection suggests that the Examiner did not consider and appreciate the claims as a whole. The claims disclose a unique combination with many features and advantages not shown in the art. It appears that the Examiner has oversimplified the claims and then searched the prior art for the constituent parts. Even with the claims as a guide, however, the Examiner did not recreate the claimed invention.

9. Conclusion

The rejection of claims 1-24 should be reversed and the application promptly allowed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S.R. Quinley', with a large, stylized loop at the end.

Steven R. Quinley  
Reg. No. 47,012  
Priest & Goldstein, PLLC  
5015 Southpark Drive, Suite 230  
Durham, NC 27713  
(919) 806-1600

APPENDIX  
(Claims Under Appeal)

1. A system for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising:
  - a central processing unit having electronic access to mortgage insurance information; and
  - a user interface for receiving user inputs indicative of a borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption, and for providing those inputs to the central processing unit,
  - the central processing unit performing an analysis of the inputted information and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity,
  - the central processing unit further calculating a maximum dollar amount of a house purchase price that the borrower can afford without using mortgage insurance,
  - the central processing unit providing results of the calculations to the user interface for output to the user.
2. The system of claim 1, wherein the central processing unit provides the results of the calculations in table format.
3. The system of claim 1, wherein the central processing unit provides a graphical representation of the results of the calculations.
4. The system of claim 1, further including:
  - an Internet connection for connecting the computer to a remote website for downloading

software components and mortgage insurance information.

5. The system according to claim 1, wherein the central processing unit calculates the maximum dollar amount of a house that can be purchased by the borrower, constrained by cash available to the borrower to close.

6. The system according to claim 1, wherein the central processing unit calculates the maximum dollar amount of a house that can be purchased by the borrower, constrained by the borrower's income.

7. The system according to claim 1, wherein the central processing unit calculates the projected home equity after predetermined periods of time.

8. The system of claim 7, wherein the central processing unit calculates the cumulative projected future home equity for years one through ten.

9. A method for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising:

(a) entering inputs into a central processing unit having electronic access to mortgage insurance information, the inputs including the borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption;

(b) performing an analysis of the inputted information, using the central processing unit, and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity,

(c) calculating a maximum dollar amount of a house purchase price that the borrower can afford without using mortgage insurance; and

(d) outputting from the central processing unit the results of the calculations.

10. The method of claim 9, wherein step (d) includes:  
providing the results of the calculations in table format.
11. The method of claim 9, wherein step (d) includes:  
providing a graphical representation of the results of the calculations.
12. The method of claim 9, further including:  
downloading software components and mortgage insurance information from a remote website.
13. The method of claim 9, wherein steps (b) and (c) include:  
calculating the maximum dollar amount of a house that can be purchased by the borrower, constrained by cash available to the borrower to close.
14. The method of claim 9, wherein steps (b) and (c) include:  
calculating the maximum dollar amount of a house that can be purchased by the borrower, constrained by the borrower's income.
15. The method of claim 9, wherein steps (b) and (c) include:  
calculating the projected home equity after predetermined periods of time.
16. The method of claim 15, further including:  
calculating the projected future home equity for years one through ten.
17. The method of claim 9, wherein step (a) includes:  
reviewing calculator assumptions and accessing background information on each variable.
18. The method of claim 17, wherein step (a) further includes:  
making changes to model assumptions.
19. The method of claim 9, further including the following step (e), after step (d):

- (e) reviewing background information and assumptions driving the calculator.
- 20. The method of claim 19, further including the following step (f), after step (e):
  - (f) changing the assumptions and rerunning steps (b), (c), and (d).
- 21. The system of claim 1 in which the central processing unit has electronic access to mortgage insurance information stored in memory.
- 22. The method of claim 9 in which inputs are entered into a central processing unit having electronic access to mortgage insurance information stored in memory, the inputs including the borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption.
- 23. A system for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising:
  - a central processing unit having electronic access to mortgage insurance information; and
  - a user interface for receiving user inputs indicative of a borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption, and for providing those inputs to the central processing unit,
  - the central processing unit performing an analysis of the inputted information and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity,
  - the central processing unit providing results of the calculations to the user interface for output to the user.
- 24. A method for optimizing a borrower's use of mortgage insurance based upon projections of future home equity, comprising:

(a) entering inputs into a central processing unit having electronic access to mortgage insurance information, the inputs including the borrower's financial situation, closing costs, loan terms, and a house value appreciation assumption;

(b) performing an analysis of the inputted information, using the central processing unit, and calculating a maximum dollar amount of a house purchase price that the borrower can afford, based upon an optimal loan-to-value ratio, achievable using mortgage insurance, that maximizes future home equity, and

(c) outputting from the central processing unit the results of the calculations.